

a CDRL2 comprising the sequence set forth as formula (V)

LLIX₁₄X₁₅X₁₆SNRX₁₇T (V); and

a CDRL3 comprising the sequence set forth as formula (VI)

QQDYSSPX₁₈ (VI),

wherein:

X₁ is any amino acid such as a polar or charged amino acid;

X₂ is any amino acid such as a non-polar amino acid;

X₃ is any amino acid such as a polar amino acid;

X₄ is any amino acid such as a non-polar amino acid;

X₅ is any amino acid such as a non-polar or polar amino acid;

X₆ is any amino acid such as a polar amino acid;

X₇ is any amino acid such as a non-polar or polar amino acid;

X₈ is any amino acid such as a polar amino acid;

X₉ is any amino acid such as a charged or non-polar amino acid;

X₁₀ is any amino acid such as a polar amino acid;

X₁₁ is either absent or is any amino acid such as a non-polar amino acid;

X₁₂ is any amino acid such as a polar amino acid;

X₁₃ is any amino acid such as a polar amino acid;

X₁₄ is any amino acid such as a polar or non-polar amino acid;

X₁₅ is any amino acid such as a polar or non-polar amino acid;

X₁₆ is any amino acid such as a non-polar amino acid;

X₁₇ is any amino acid such as a polar amino acid; and

X₁₈ is any amino acid such as a polar or non-polar amino acid.

11-13. (canceled)

14. An isolated antibody or antigen binding fragment thereof that binds to Ag43a (SEQ ID NO: 1) at an epitope comprising one or more residues selected from the group consisting of N83, R113, N114, D133, N150, T151, T152, G169, R254, E270, T291, T310, R330, G332, A333, S335, T361, N362, R364, T380, T381, S383, N386, S399, T401, D404 and G405.

15-23. (canceled)

24. An isolated antibody or antigen binding fragment thereof that a) specifically binds to an autotransporter or b) reduces binding of one autotransporter molecule to another autotransporter molecule.

25-41. (canceled)

42. An isolated antibody or antigen binding fragment thereof that competes for binding to Ag43a with a control antibody, wherein the control antibody comprises:

a) a CDRH1 comprising the sequence set forth in SEQ ID NO: 3;

a CDRH2 comprising the sequence set forth in SEQ ID NO: 4;

a CDRH3 comprising the sequence set forth in SEQ ID NO: 5;

a CDRL1 comprising the sequence set forth in SEQ ID NO: 6;

a CDRL2 comprising the sequence set forth in SEQ ID NO: 7; and

a CDRL3 comprising the sequence set forth in SEQ ID NO: 8; or

b) a CDRH1 comprising the sequence set forth in SEQ ID NO: 15;

a CDRH2 comprising the sequence set forth in SEQ ID NO: 16;

a CDRH3 comprising the sequence set forth in SEQ ID NO: 17;

a CDRL1 comprising the sequence set forth in SEQ ID NO: 18;

a CDRL2 comprising the sequence set forth in SEQ ID NO: 19; and

a CDRL3 comprising the sequence set forth in SEQ ID NO: 20.

43-59. (canceled)

60. An isolated nucleic acid encoding a) the antibody or antigen binding fragment of claim 1 or b) a heavy chain variable region or a light chain variable region of the antibody or antigen binding fragment.

61. (canceled)

62. An isolated nucleic acid encoding:

a VH comprising the sequence set forth in SEQ ID NO: 9 or SEQ ID NO: 21 or a sequence having at least 90% identity to SEQ ID NO: 9 or SEQ ID NO: 21; or

a VL comprising the sequence set forth in SEQ ID NO: 10 or SEQ ID NO: 22 or a sequence having at least 90% identity to SEQ ID NO: 10 or SEQ ID NO: 22.

63-64. (canceled)

65. An isolated expression vector comprising the isolated nucleic acid of claim 60.

66. A host cell comprising the isolated nucleic acid of claim 60.

67. A method of producing an antibody or antigen binding fragment the method comprising culturing the host cell of claim 66 under conditions that allow production of the antibody or antigen binding fragment and purifying the antibody or antigen binding fragment from the host cell.

68. A composition comprising the isolated antibody or antigen binding fragment of claim 1 and an antibiotic agent.

69. (canceled)

70. A method of reducing aggregation of two or more bacteria the method comprising contacting the two or more bacteria with an effective amount of the antibody or antigen binding fragment of claim 1.

71-74. (canceled)

75. A method of inhibiting interaction between two or more autotransporter molecules the method comprising contacting at least one of said two or more autotransporter molecules with the antibody or antigen binding fragment of claim 1.

76-78. (canceled)

79. A method of inhibiting homodimerisation between two autotransporter molecules the method comprising contacting at least one of said two autotransporter molecules with an autotransporter-binding molecule wherein the autotransporter-binding molecule binds to the at least one autotransporter molecule and thereby blocks homodimerisation between the two autotransporter molecules.

80-85. (canceled)

86. A method of treating a bacterial infection in a subject, the method comprising administering to the subject a therapeutically effective amount of the antibody or antigen binding fragment of claim 1.

87-92. (canceled)

93. A method of treating a disease or disorder associated with a bacterial infection in a subject the method comprising